

PCVD APPARATUS AND A METHOD OF MANUFACTURING AN OPTICAL FIBER, A  
PREFORM ROD AND A JACKET TUBE AS WELL AS THE OPTICAL FIBER  
MANUFACTURED THEREWITH

ABSTRACT OF THE DISCLOSURE

The invention relates to an apparatus for performing Plasma Chemical Vapor Deposition (PCVD), whereby one or more layers of silica can be deposited on an elongated vitreous substrate. The apparatus includes an elongated microwave guide which emerges into a resonant cavity which is substantially cylindrically symmetric about a cylindrical axis, along which axis the substrate can be positioned. Aspects of the apparatus include the cavity being substantially annular in form, with an inner cylindrical wall and an outer cylindrical wall and the inner cylindrical wall having a slit which extends in a full circle around the cylindrical axis: Additional aspects include the guide having a longitudinal axis which is substantially perpendicular to the cylindrical axis and which does not intercept the slit. The invention also relates to a method of manufacturing an optical fiber, a preform rod and a jacket tube as well as to the thus obtained optical fiber.